

Title (en)  
Track detection circuit for optical disc playback apparatus

Title (de)  
Spurdetektionsschaltung für optisches Plattenabspielgerät

Title (fr)  
Circuit de détection de piste pour lecteur de disque optique

Publication  
**EP 0840297 A3 19990922 (EN)**

Application  
**EP 97118836 A 19971029**

Priority  
JP 29069296 A 19961031

Abstract (en)  
[origin: EP0840297A2] Bottom detection circuit (5) detects the bottom of an RF signal from an addition circuit (3). The output signal of bottom detection circuit (5) is converted into a digital signal with A/D conversion circuit (10) to obtain maximum and minimum values using maximum value detection circuit (12) and minimum value detection circuit (13). The maximum and minimum values are applied to an arithmetic processing circuit (14) and a reference value is calculated based on that minimum value or maximum value. The reference value is held with hold circuit (15) and then converted into an analog signal with D/A conversion circuit (16). During track jumping, the output signal of bottom detection circuit (5) is compared with a reference voltage Vref corresponding to the reference value with comparison circuit (17) to obtain an output signal that corresponds to the presence or absence of a track. In this manner, track detection based on the bottom detection output of an RF signal is not affected by scratches or the like on an optical disc, and accurate track detection is possible. Tracks are detected using the peak detection output when only the peak detection output of the RF signal is unaffected by the presence of scratches or the like on the optical disc. <IMAGE>

IPC 1-7  
**G11B 7/085**

IPC 8 full level  
**G11B 7/085** (2006.01); **G11B 7/09** (2006.01)

CPC (source: EP KR US)  
**G11B 7/08529** (2013.01 - KR); **G11B 7/08541** (2013.01 - EP KR US); **G11B 7/0948** (2013.01 - EP US); **G11B 20/10037** (2013.01 - KR); **G11B 2020/10925** (2013.01 - KR); **G11B 2220/2537** (2013.01 - KR)

Citation (search report)

- [A] US 4769613 A 19880906 - SAWATA HISASHI [JP], et al
- [A] EP 0363022 A2 19900411 - CANON KK [JP]
- [A] EP 0480761 A2 19920415 - PIONEER ELECTRONIC CORP [JP]

Cited by  
EP0961270A1; EP1443502A1; EP1237154A3; US6577572B2; US7248547B2; KR100609336B1

Designated contracting state (EPC)  
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)  
**EP 0840297 A2 19980506**; **EP 0840297 A3 19990922**; **EP 0840297 B1 20050615**; CN 1118801 C 20030820; CN 1199217 A 19981118; DE 69733528 D1 20050721; DE 69733528 T2 20060511; DK 0840297 T3 20050704; JP H10134369 A 19980522; KR 100531053 B1 20060220; KR 19980033329 A 19980725; TW 397975 B 20000711; US 5854781 A 19981229

DOCDB simple family (application)  
**EP 97118836 A 19971029**; CN 97126081 A 19971031; DE 69733528 T 19971029; DK 97118836 T 19971029; JP 29069296 A 19961031; KR 19970056412 A 19971030; TW 86116126 A 19971030; US 96205397 A 19971031